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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Mark Gibson

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EXAMINER

MOORE, IAN N

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/751,058	Applicant(s) GIBSON ET AL.	
	Examiner Ian N Moore	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed on 13 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-13,15 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-13,15 and 17-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claim objections, on claims 8 and 16 are withdrawn since they are being amended accordingly.
2. Claim rejection under 35 U.S.C. 112, second paragraph, claims 8-10 are withdrawn since they are being amended accordingly.
3. Claims 1,4,5,6,8,9,10,12,13,15,17,18,19,20,21,22,23 are amended.
4. Claims 7,14,16 are cancelled.
5. Claims 1-6,8-13,17-23 are rejected by the new ground(s) of rejection necessitated by the amendment.

Claim Rejections - 35 USC § 112 - first paragraph

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new added limitations "...than those of the LSPs..." in page 2, lines 6. Specification page 2, line 31 states "...multiplexing sessions by applying cross connections at a higher label

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level...” Specification does not disclose the multiplexing sessions by applying cross connections at a higher label level **than those of the LSPs**.

Claims 8-11 are also rejected since they are depended upon rejected claim 6.

Claim Rejections - 35 USC § 112 - second paragraph

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 6,8-11,12,13 and 15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites “**those**” page 2, line 6. It is unclear whether “those” refers to “sessions” or “cross connections”.

Claim 12 recites the limitation “**the** first virtual route” in page 3, line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites “**said** message” in line 6. It is unclear whether “said message” refers to “a path message” (line 4) or “a RSVP message”.

Claim 8-11 and 15 are also rejected since they are depended upon rejected claims 6 and 13.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1, 17 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by in view of Kodialam (U.S. 6,538,991).

Regarding Claims 1, Kodialam discloses method of routing traffic in a label switched packet network (see FIG. 6, MPLS network; see col. 5, lines 13-14) in which label switched paths are installed (see FIG. 5, Forwarding Table 510) between nodes of the network (see FIG. 6, labeled switched nodes, N1-N15; see col. 11, lines 10-15) a method comprising:

defining and installing partial routes (see FIG. 6, first partial route of N1-N4-N9-N10 and second partial route N10-N11-N13; see FIG. 4, Forwarding Table 510 in the memory 505 stores the routes; see col. 10, lines 42-56; see col. 3, lines 52-58) in the network, each partial route comprising at least two LSPs (see FIG. 6, first route N1-N4-N9-N10 contains 3 labeled switch paths (LSPs) between N1, N4, N9 and N10; see col. 11, lines 5-45) with a pre-installed cross-connection (see FIG. 5, Forwarding Table 510 stores the cross connections, and Table 1 see col. 11, lines 15-45) in a node at each end of the at least two LSPs (see FIG. 6, node N1 or N10 at each end of 3 LSPs) such that an end-to-end route across the network (see FIG. 6, end-to-end route between S1 and D1) can be defined as the concatenation of two of said partial routes across the network (see FIG. 6, partial routes N1-N4-N9-N10, and N10-N13, which forms an end-to-end N1-N4-N9-N10-N11-N13; see col. 11, lines 5-59; Table 1).

Regarding claims 17 and 23 are a labeled switching network system and a virtual router embodied as software program instruction claims that have substantially all the

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limitations of the respective method claim 1. Therefore, they are subjected to the same rejection.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 2-5 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodialam (U.S. 6,538,991) in view of Ebata (U.S. 6,708,209).

Regarding Claims 2 and 18, Kodialam does not explicitly disclose partitioning into a plurality of autonomous system regions. Kodialam teaches a network (see FIG. 1 network) is partitioned into a plurality of autonomous system regions (see FIG. 1, Autonomous Systems (AS) for Organization A-D; 1000-4000; col. 4, line 49-54).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to divide/portion into AS systems, as taught by Ebata'209 so that it would provide a policy server to manage/control QoS of each AS network/organization locally based upon border router protocol, and enable the network system administrator to control each group/member information, priority, and resource allocation; see Ebata col. 1, line 60-65 and col. 4, lines 18-25.

Regarding Claims 3 and 19, Kodialam further discloses wherein the partial routes are selected based on congestion measurements (see col. 11, lines 1-4, lines 59-66).

Regarding Claims 4 and 20, Kodialam further discloses wherein said partial routes comprise cross connections (see FIG. 5, Forwarding Table 510 of the label switched router 500) in label switching nodes (see FIG. 6, label switched router N1-N15; see col. 10, lines 44-56).

Regarding Claims 5 and 21, Kodialam further discloses wherein said paths and partial routes are installed. Ebata'209 discloses said paths and partial routes are installed via a common open policy service protocol (see FIG. 19, steps 516,306,307,310 utilizes COPS protocol for reservation paths/routes; see col. 14, lines 30-44. Also, see col. 16, lines 13-34; note that the paths/routes are installed/reserved/established by utilizing Common Open Policy Service protocol). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide COPS to reserve/install/establish the paths/routes, as taught by Ebata in the system of Kodialam, so that it would provide a mechanism allowing servers and routers to exchange network policies and performs resource allocation; see col. 16, line 60 to col. 20, lines 34.

Regarding Claim 22, Kodialam further discloses signalling means for sending path reservation requests as tunnelled resource reservation protocol (RSVP) messages between first and second virtual routers (see FIG. 3, RSVP messages between Routers/Nodes N1-N11; col. 5, lines 51-64, see col. 7, lines 1-14).

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14. Claims 6,8,9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodialam (U.S. 6,538,991) in view of Chuah (U.S. 6,408,001).

Regarding claim 6, Kodialam discloses a method of operating a multi-protocol label switched packet network (see FIG. 6, MPLS network; see col. 5, lines 13-14), the method comprising

partitioning the network by using constraint based routing (see col. 3, lines 50-61) to install label switched paths (LSPs) (see FIG. 4, Forwarding Table 510 in the memory 505; see col. 10, lines 42-56; see col. 3, lines 52-58) between nodes of the network (see FIG. 6, labeled switched nodes, N1-N15; see col. 11, lines 10-15);

defining and installing partial routes (see FIG. 6, first partial route of N1-N4-N9-N10 and second partial route N10-N11-N13; see FIG. 4, Forwarding Table 510 in the memory 505; see col. 10, lines 42-56; see col. 3, lines 52-58) in the network, each partial route comprising at least two LSPs (see FIG. 6, first route N1-N4-N9-N10 contains 3 labeled switch paths (LSPs) between N1, N4, N9 and N10; see col. 11, lines 5-45) with a pre-installed cross-connection (see FIG. 5, Forwarding Table 510 stores cross connects), and see Table 1 see col. 11, lines 15-45) in a node at each of the at least two LSPs (see FIG. 6, N1 or N10 at each of 3 label switched paths);

discloses wherein pre-installed cross connections enable dynamic multiplexing of sessions into the label switched paths (see col. 11, lines 5-59; Table 1, request# 4 (1-4-9-10-13) and #19 (1-4-9-10-11-13); note that two partial/segment/sessions routes are multiplexed/combined into LSPs Node 1 and 13) at a higher label level than those of the LSPs (see FIG. 2, label 201 includes QoS label; see col. 2, lines 56-67; col. 6, lines 18-35;

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col. 10, lines 44-56; The forwarding table performs cross-connections/forwarding/routing at the requested higher QoS bandwidth level label or demand "bd". End-to-end path always have higher priority than individual LSPs).

Kodialam does not explicitly disclose wherein a label stack installed at an edge of the network acts as a source route. , Chuah teaches wherein a label stack (see FIG.6, Label Stack 600) installed at an edge of the network (see FIG. 8, LSR 4 or LSR 5 is at the edge of the MPLS network 400) acts as a source route (see FIG. 8, a route between ITS4 and LSR4/5) such that pre-installed cross connections (see FIG. 8, LSR 7; see col. 5, lines 23-25; a predefined/pre-installed forwarding/routing label table) achieve dynamic multiplexing into the label switched paths (see FIG. 8, multiplex label switch paths 830 and 860; see col. 9, line 49-63; see col. 10, lines 1-35). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a label stack installed at the edge of the network as a source route and aggregating/multiplexing segments/partial source routes, as taught by Chuah in the system of Kodialam, so that it would provide reduce the packet processing time at each router, and since the routes/streams/labels are aggregated, the routers maintain and access fewer label ;see Chuah col. 3, line 1-9.

Regarding Claim 8, Kodialam further discloses wherein the partial routes are selected based on congestion measurements (see col. 11, lines 1-4, lines 59-66; note that partial routes based upon constraint base routing are selected according to the congestion/interference with other routes sine less congested route may not be minimum/shortest hop route).

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Regarding Claim 9, Kodialam further discloses wherein said partial routes comprise cross connections (see FIG. 5, Forwarding Table 510 of the label switched router 500) in label switching nodes (see FIG. 6, label switched router N1-N15; see col. 10, lines 44-56).

Regarding Claim 11, Kodialam further discloses the method is embodied as software (see FIG. 6, Interconnection node N1-N15 performing a flow chart software algorithm for LSP establishing/installing see FIG. 4) in machine readable form on a storage medium (note that routers/nodes the method/process must be installed on the in machine readable form on a storage medium).

15. Claim 10 is and rejected under 35 U.S.C. 103(a) as being unpatentable over Kodialam and Chuah, as in claims 6 and 9, and further in view of Ebata'209.

Regarding Claim 10, neither Kodialam nor Chuah explicitly disclose a common open policy service protocol. However, Ebata'209 discloses said paths and partial routes are installed via a common open policy service protocol (see FIG. 19, steps 516,306,307,310 utilizes COPS protocol for reservation paths/routes; see col. 14, lines 30-44. Also, see col. 16, lines 13-34).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide COPS to reserve/install/establish the paths/routes, as taught by Ebata, in the combined system of Kodialam and Chuah, so that it would provide a mechanism allowing servers and routers to exchange network policies and performs resource allocation; see Ebata col. 16, line 60 to col. 20, lines 34.

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16. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodialam in view of Donovan (U.S. 6,366,577).

Regarding claim 12, Kodialam discloses a method of signalling to provide routing in a multi-protocol label switched packet network (see FIG. 6, MPLS network; see col. 5, lines 13-14), the method comprising:

 sending a path message (see col. 7, lines 9-18; note that RSVP message) from an end point (see FIG. 6, Source node/router S1) to a first virtual router (see FIG. 6, first Node/router N4,N8 or N9),

 determining a first half path (see FIG. 6, first partial route of N1-N4-N9-N10) from the first virtual router across the network towards a second virtual router (see FIG. 6, second Node/router N10 or N11; see FIG. 2, label 201 and see FIG. 5, forwarding table 505; see col. 2, lines 36-50; see col. 10, lines 45-55; note that by utilizing labels in the header, a path is determined/defined between S1 and N4),

 forwarding an identify of said first half path (see FIG. 2, label 201) to the second virtual router (see FIG. 5, forwarding table 505; see col. 10, lines 45-55; note that the forwarding table of the first node/router identifies a label of the path to a second node/router)

 determining a second half path across the network (see FIG. 6, second partial route N10-N11-N13) which together with the first half path defines a path across the network between the first and second virtual routers (see FIG. 6, an end-to-end path N1-N4-N9-N10-N11-N13 between S1 and D1; see col. 11, lines 5-59; Table 1),

determining a routing vector of said path across the network (see FIG. 4, steps 401-405; see col. 7, lines 15-50, see col. 8, lines 1-7; a vector for routing is determined/calculated across the network); and

wherein each of said half paths comprises a partial route (see FIG. 6, first partial route of N1-N4-N9-N10) installed in the network (see FIG. 4, Forwarding Table 510 in the memory 505 stores the routes; see col. 10, lines 42-56; see col. 3, lines 52-58), each partial route comprising at least two label switched paths (LSPs) (see FIG. 6, first route N1-N4-N9-N10 contains 3 labeled switch paths (LSPs) between N1, N4, N9 and N10; see col. 11, lines 5-45) with a pre-installed cross-connection (see FIG. 5, Forwarding Table 510 stores the cross connections, and Table 1 see col. 11, lines 15-45) in a node at each end of the at least two LSPs (see FIG. 6, node N1 or N10 at each end of 3 LSPs).

Kodialam does not explicitly disclose returning information identifying said routing vector to the first virtual router. However, returning information identifying said routing vector to the first virtual router are well known in the art. RSVP signaling request and responses messages are transmitted with the routing information (i.e. QoS bandwidth/resource) between the routers/switches/nodes. Donovan teaches these limitations (see FIG. 2 and 3; see col. 6, lines 22 to col. 8, lines 24).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an RSVP acknowledgement/response by incorporating the routing information to the requester, as taught by Donovan in the system of Kodialam, so that it would provide end-to-end RSVP signaling that is efficient in its use of network resources and easy to implement, see Donovan col. 2, line 1-65 and it would also

ensure and increase reliability of end-to-end QoS between the nodes before the connection is established/installed.

Regarding claim 13, Kodialam discloses a method of signalling to provide routing in a multi-protocol label switched packet network (see FIG. 6, MPLS network; see col. 5, lines 13-14), the method comprising:

 sending a path message (see col. 7, lines 9-18; note that RSVP message) from an end point (see FIG. 6, Source node/router S1) to a first virtual router (see FIG. 6, first Node/router N4,N8 or N9),

 encapsulating the path message within a resource reservation protocol (RSVP) message (see FIG. 2, a message with Label 201 and RSVP; see col. 2, lines 43-67; see col. 3, lines 1-4,35-39, 55-64; note that labels and RSVP are encapsulated in a packet/message) and transmitted said message to a second virtual router (see FIG. 6, second Node/router N10 or N11; see FIG. 2, label 201 and see FIG. 5, forwarding table 505; see col. 2, lines 36-50; see col. 10, lines 45-55),

 determining a second half path across the network (see FIG. 6, second partial route N10-N11-N13) towards the second virtual router,

 determining routing vector information for said second half path (see FIG. 4, steps 401-405; see col. 7, lines 15-50, see col. 8, lines 1-7; a vector for routing is determined/calculated for paths); and

 determining a first half path across the network (see FIG. 6, first partial route of N1-N4-N9-N10) which together with the second half path defines a path across the network

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between the first and second virtual routers (see FIG. 6, an end-to-end path N1-N4-N9-N10-N11-N13 between S1 and D1; see col. 11, lines 5-59; Table 1),

wherein each of said half paths comprises a partial route (see FIG. 6, first partial route of N1-N4-N9-N10) installed in the network (see FIG. 4, Forwarding Table 510 in the memory 505 stores the routes; see col. 10, lines 42-56; see col. 3, lines 52-58), each partial route comprising at least two label switched paths (LSPs) (see FIG. 6, first route N1-N4-N9-N10 contains 3 labeled switch paths (LSPs) between N1, N4, N9 and N10; see col. 11, lines 5-45) with a pre-installed cross-connection (see FIG. 5, Forwarding Table 510 stores the cross connections, and Table 1 see col. 11, lines 15-45) in a node at each end of the at least two LSPs (see FIG. 6, node N1 or N10 at each end of 3 LSPs).

Kodialam does not explicitly disclose returning information identifying said routing vector to the first virtual router. However, returning information identifying said routing vector to the first virtual router are well known in the art. RSVP signaling request and responses messages are transmitted with the routing information (i.e. QoS bandwidth/resource) between the routers/switches/nodes. Donovan teaches theses limitations (see FIG. 2 and 3; see col. 6, lines 22 to col. 8, lines 24).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an RSVP acknowledgement/response by incorporating the routing information to the requester, as taught by Donovan in the system of Kodialam, so that it would provide end-to-end RSVP signaling that is efficient in its use of network resources and easy to implement, see Donovan col. 2, line 1-65 and it would also

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ensure and increase reliability of end-to-end QoS between the nodes before the connection is established/installed.

Allowable Subject Matter

17. Claim 15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

18. Applicant's arguments with respect to claims 1, 17 and 23 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 1,17 and 23, the applicant argued that, "...Kodialam does not teach the installation in a label switched packet network of partial route, each comprising at least two label switched paths (LSP) with a pre-installed cross-connection in a node at each end of the at least two LSPs, such that an end-to-end route across the network can be defined as the concatenation of two of said partial routes..." in remark page 1.

In response to applicant's argument, Kodialam teaches defining and installing partial routes (see FIG. 6, first route of N1-N4-N9-N10 and second route N10-N11-N13; see FIG. 4, Forwarding Table 510 in the memory 505; see col. 10, lines 42-56; see col. 3, lines 52-58) in the network, each partial route comprising at least two LSPs (see FIG. 6, first route N1-N4-N9-N10 contains 3 LSPs between N1, N4, N9 and N10; see col. 11, lines 5-45) with a pre-installed cross-connection (see FIG. 5, Forwarding Table 510, and Table 1 see col. 11,

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lines 15-45) in a node at each end of the at least two LSPs (see FIG. 6, N1 and N10) such that an end-to-end route across the network (see FIG. 6, end-to-end route between S1 and D1) can be defined as the concatenation of two of said partial routes across the network (see FIG. 6, partial routes N1-N4-N9-N10, and N10-N11-N13, which forms an end-to-end N1-N4-N9-N10-N11-N13; see col. 11, lines 5-59; Table 1).

The applicant argued that, "...Kodialam reference is made to links and not partial routes..." in remark page 1.

In response to applicant's argument, the examiner respectfully disagrees that Kodialam reference does not made partial routes. The terms/names "links", "paths", "routes", and "partial routes" have a single meaning "**connections between two or more nodes**". Thus, examiner finds no difference between the terms/names "links", "paths", "routes", or "partial routes" so long as the term/name refers to the "**connections between two or more nodes**". In this case, Examiner asserts each Kodialam's collective of links/routes/paths (i.e. N1-N4-N9-N10) as "a partial route" between source and destination nodes.

The applicant argued that, "...there is no teaching in Kodialam to concatenate two **previously installed partial paths** or event two series of links to provide an end to end connection across the network...an end to end route comprising the concatenation of two partial routes..." in remark page 1 and 2.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **previously installed partial paths**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not

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read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument, the examiner respectfully disagrees that there is no teaching in Kodialam to concatenate two previously installed partial paths or event two series of links to provide an end-to-end connection across the network. Kodialam discloses a label switching nodes (see FIG. 5 and 6). Each node stores a forwarding table 510 in the memory 505, which route/forward the paths/routes/links. The routing/forwarding is performed by cross connecting between input interface 503 and output interface 505 based upon forwarding table stored in the memory (see FIG. 6). As clearly shown in Kodialam Table 1, see col. 11, lines 15-45 and FIG. 6, an end-to-end route/path contains addition/combining/concentrating two partial paths/routes, and each partial path/route contains at least two links.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 571-272-3085. The examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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